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14 CFR Ch. I (1–1–08 Edition)

**II. AIRFRAME SYSTEMS AND COMPONENTS—
Continued**

Teach- ing level	
	I. ICE AND RAIN CONTROL SYSTEMS
(2)	53. Inspect, check, troubleshoot, service, and repair airframe ice and rain control systems.
	J. FIRE PROTECTION SYSTEMS
(1)	54. Inspect, check, and service smoke and carbon monoxide detection systems.
(3)	55. Inspect, check, service, troubleshoot, and repair aircraft fire detection and extinguishing systems.

[Amdt. 147–2, 35 FR 5535, Apr. 3, 1970, as amended by Amdt. 147–5, 57 FR 28960, June 29, 1992]

**APPENDIX D TO PART 147—POWERPLANT
CURRICULUM SUBJECTS**

This appendix lists the subjects required in at least 750 hours of each powerplant curriculum, in addition to at least 400 hours in general curriculum subjects.

The number in parentheses before each item listed under each subject heading indicates the level of proficiency at which that item must be taught.

I. POWERPLANT THEORY AND MAINTENANCE

Teach- ing level	
	A. RECIPROCATING ENGINES
(1)	1. Inspect and repair a radial engine.
(2)	2. Overhaul reciprocating engine.
(3)	3. Inspect, check, service, and repair reciprocating engines and engine installations.
(3)	4. Install, troubleshoot, and remove reciprocating engines.
	B. TURBINE ENGINES
(2)	5. Overhaul turbine engine.
(3)	6. Inspect, check, service, and repair turbine engines and turbine engine installations.
(3)	7. Install, troubleshoot, and remove turbine engines.
	C. ENGINE INSPECTION
(3)	8. Perform powerplant conformity and air worthiness inspections.

II. POWERPLANT SYSTEMS AND COMPONENTS

Teach- ing level	
	A. ENGINE INSTRUMENT SYSTEMS
(2)	9. Troubleshoot, service, and repair electrical and mechanical fluid rate-of-flow indicating systems.
(3)	10. Inspect, check, service, troubleshoot, and repair electrical and mechanical engine temperature, pressure, and r.p.m. indicating systems.
	B. ENGINE FIRE PROTECTION SYSTEMS
(3)	11. Inspect, check, service, troubleshoot, and repair engine fire detection and extinguishing systems.

**II. POWERPLANT SYSTEMS AND COMPONENTS—
Continued**

Teach- ing level	
	C. ENGINE ELECTRICAL SYSTEMS
(2)	12. Repair engine electrical system components.
(3)	13. Install, check, and service engine electrical wiring, controls, switches, indicators, and protective devices.
	D. LUBRICATION SYSTEMS
(2)	14. Identify and select lubricants.
(2)	15. Repair engine lubrication system components.
(3)	16. Inspect, check, service, troubleshoot, and repair engine lubrication systems.
	E. IGNITION AND STARTING SYSTEMS
(2)	17. Overhaul magneto and ignition harness.
(2)	18. Inspect, service, troubleshoot, and repair reciprocating and turbine engine ignition systems and components.
(3)	19.a. Inspect, service, troubleshoot, and repair turbine engine electrical starting systems.
(1)	19.b. Inspect, service, and troubleshoot turbine engine pneumatic starting systems.
	F. FUEL METERING SYSTEMS
(1)	20. Troubleshoot and adjust turbine engine fuel metering systems and electronic engine fuel controls.
(2)	21. Overhaul carburetor.
(2)	22. Repair engine fuel metering system components.
(3)	23. Inspect, check, service, troubleshoot, and repair reciprocating and turbine engine fuel metering systems.
	G. ENGINE FUEL SYSTEMS
(2)	24. Repair engine fuel system components.
(3)	25. Inspect, check, service, troubleshoot, and repair engine fuel systems.
	H. INDUCTION AND ENGINE AIRFLOW SYSTEMS
(2)	26. Inspect, check, troubleshoot, service, and repair engine ice and rain control systems.
(1)	27. Inspect, check, service, troubleshoot and repair heat exchangers, superchargers, and turbine engine airflow and temperature control systems.
(3)	28. Inspect, check, service, and repair carburetor air intake and induction manifolds.
	I. ENGINE COOLING SYSTEMS
(2)	29. Repair engine cooling system components.
(3)	30. Inspect, check, troubleshoot, service, and repair engine cooling systems.
	J. ENGINE EXHAUST AND REVERSER SYSTEMS
(2)	31. Repair engine exhaust system components.
(3)	32.a. Inspect, check, troubleshoot, service, and repair engine exhaust systems.
(1)	32.b. Troubleshoot and repair engine thrust reverser systems and related components.
	K. PROPELLERS
(1)	33. Inspect, check, service, and repair propeller synchronizing and ice control systems.
(2)	34. Identify and select propeller lubricants.
(1)	35. Balance propellers.
(2)	36. Repair propeller control system components.
(3)	37. Inspect, check, service, and repair fixed-pitch, constant-speed, and feathering propellers, and propeller governing systems.
(3)	38. Install, troubleshoot, and remove propellers.
(3)	39. Repair aluminum alloy propeller blades.

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**II. POWERPLANT SYSTEMS AND COMPONENTS—
Continued**

(Sec. 6(c), Dept. of Transportation Act; 49 U.S.C. 1655(c))

[Amdt. 147-2, 35 FR 5535, Apr. 3, 1970, as amended by Amdt. 147-5, 57 FR 28961, June 29, 1992]

Teach-
ing
level

L. UNDUCTED FANS

- (1) 40. Inspect and troubleshoot unducted fan systems and components.

M. AUXILIARY POWER UNITS

- (1) 41. Inspect, check, service, and troubleshoot turbine-driven auxiliary power units.